

FastPlank® & FEPS™ Technical Summary

Extruded aluminum rainscreen cladding with concealed clip attachment

Key points addressing the system as manufactured and supplied. Attachment design, water management, movement accommodation and structural provisions remain project-specific and are to be confirmed against the applicable drawings, details and code requirements.

PRODUCT	FastPlank® extruded aluminum cladding system
SCOPE	FastPlank and the FEPS™ (Full Exterior Product Solutions) range
DOCUMENT	Technical summary prepared for building envelope review
ISSUED BY	Siobhan Hertel, National Channel Sales & Corporate Development Manager
COMPANY	Engage Building Products Inc., Calgary, Alberta, Canada

■ THE SYSTEM

FastPlank® is an extruded aluminum plank cladding installed over a concealed clip. The **FP Plank Clip** offsets the plank 3/8 in. (9.5 mm) from the substrate, providing concealed mechanical attachment and a drained, ventilated cavity in a single operation. Planks engage through a tongue-and-groove interlock and are retained so that longitudinal thermal movement is permitted rather than restrained.

FEPS (Full Exterior Product Solutions) is the family of precision-extruded aluminum profiles engineered to be combined on a single building under one design language and one attachment methodology, unifying the FastPlank plank systems with QuickPanel® 2.0 and complementary architectural profiles.

9.5 mm DRAINED, VENTED CAVITY	6063-T6 EXTRUDED ALUMINUM	One ATTACHMENT CONDITION	50 yr PRODUCT WARRANTY	20 yr FINISH WARRANTY
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Relevance to envelope design. Profiles can be mixed across elevations, banding, feature walls, story differentiation, while the wall assembly presents a **single attachment condition, a single 3/8 in. drained and ventilated cavity, and consistent movement and drainage behavior.** Visual variation is achieved through profile selection rather than through a change in cladding material or attachment system. Installation methodology, cavity depth and attachment sequence are consistent across the range.

Range	Profiles
Plank profiles	6 in. V-Notch · 3 in. Double V-Notch · Board & Batten, to 24 ft runs · Invisi-Line™ with Reveals · 8/16 in. Lap · Shallow, Medium Deep, Deep and 2-Piece Fluted · Variable Square Notch · Standing Seam · Chevron
Complementary systems	Architectural Fins: fixed or floating, in Standing (projecting blade) and Surface (flush-mounted) profiles · QuickPanel® 2.0: PVDF Kynar-coated non-combustible aluminum panel with route-and-return appearance and internal stiffeners, installed without CNC routing or cassette fabrication

■ FEATURES AND DESIGN CONSEQUENCES

Stated as the mechanism and what it changes in the wall assembly.

Feature	Consequence for the assembly
Non-combustible aluminum with a woodgrain finish. Sublimated architectural finish on an extrusion that meets the non-combustible definition under CAN/ULC-S114 and ASTM E136.	Wood appearance without combustible cladding. On mid-rise combustible construction, the non-combustible cladding route under Article 3.1.4.8(1)(a) is available directly, without relying on a CAN/ULC-S134 assembly test to qualify the elevation.
Clip provides attachment and cavity in one operation. The FP Plank Clip offsets the plank 3/8 in. (9.5 mm) and retains it mechanically.	Furring installed only to create the cavity is eliminated, removing a layer and its fastener penetrations through the WRB and air barrier. Fewer membrane penetrations is fewer air barrier continuity details to resolve and inspect.
Pressure-moderated cavity, verified by test. AAMA 508-21: lag time below 0.08 s, cavity-to-cyclic pressure differential within 50% of maximum test pressure across 240–1200 Pa.	The cavity reduces the pressure differential driving water inward rather than relying on drainage alone. This is a performance-verified rainscreen, not a nominally drained cavity.
Clip permits longitudinal movement. Planks are mechanically retained but not clamped.	Thermal movement is accommodated at plank ends and terminations rather than restrained at the fastener. Removes fastener-induced distortion as a failure mode and makes movement a layout question with a defined clearance schedule.
Non-absorptive material. Aluminum does not rot, swell, or change dimension with moisture content, and is not subject to freeze-thaw or absorption behavior.	Cladding drying is not a design variable. The cavity's drying capacity serves the assembly rather than the cladding, and cladding moisture content is removed from the hygrothermal assessment.
Concealed fastening. No exposed penetrations through the plank face.	No face-sealed joints and no exposed sealant on the cladding plane to inspect or maintain. Water management stays where it belongs, at the drainage plane.
One attachment methodology across the range. Profiles share the clip, cavity depth, installation sequence and interface conditions.	Profiles can be mixed across elevations for banding, feature walls or story differentiation while the reviewed assembly remains a single attachment condition, a single 3/8 in. cavity, and one drainage and movement behavior . One detail set to coordinate rather than a second cladding system with its own interfaces.
Low cladding dead load. Extruded aluminum, thin-wall section.	Reduces demand on secondary cladding support, and makes overclad viable where added dead load governs. Engage provides an assembly weight for the specified profile and clip spacing for the structural engineer's load analysis.
Factory-applied architectural finish. Powder coat, electrostatically applied and oven-cured; woodgrains by sublimation.	No field coating and no prescribed repainting cycle. Corrosion performance is verified at 1000 hours under ASTM B117 with no corrosion front or back.
System trim and flashing components. Heads, jambs, sills, corners, transitions and terminations, including perforated J-trims and perforated starter trims .	Interfaces are resolved with system components rather than shop-fabricated one-offs, so the tested condition and the built condition stay aligned. The perforated trims provide the ventilation opening and screening in a single component, removing a separately specified screening element where the project's free vent area requirement is satisfied.
Conventional installation. No CNC routing, no cassette fabrication, no specialized tooling.	Installation risk is lower on a trade that has not installed the system before, and the governing variables stay substrate preparation, flashing, fastening and clearances rather than fabrication tolerance.
Acoustic performance. STC 60 for the high-performance wall system, ASTM E90.	Supports acoustic separation targets on multifamily and mixed-use elevations without a separate cladding-side treatment.

■ WHAT THE SYSTEM PROVIDES AND WHAT REMAINS PROJECT DESIGN

FastPlank is the cladding and rainscreen component. The WRB, air barrier and flashing strategy remain part of the wall assembly design, coordinated at openings, penetrations, transitions and roof interfaces.

Rainscreen cavity. Where strapping would otherwise exist only to create the cavity, it can be eliminated. Sub-framing is still required where the wall design dictates it: exterior insulation thickness, structural attachment depth, or substrate condition.

Screening may or may not be eliminated, depending on the requirements of the project. Perimeter closures, ventilation openings and insect protection at base of wall, terminations and openings remain part of the project details. Where those functions can be satisfied by system components, Engage supplies **perforated J-trims and perforated starter trims** that provide the ventilation opening and screening in the same component, so a separate screening element is not required. Where the project's required free vent area, exposure or code condition is not met by those components, separate screening remains necessary. Confirm against the applicable Engage detail for the selected profile and condition.

Through-wall flashing. At through-wall flashing locations the plank assembly is terminated and detailed so that water reaching the drainage plane discharges positively to the exterior. **Flashing projection must account for the added wall thickness of the clip and plank.** Compatible trim and flashing components are available for heads, jambs, sills, corners, transitions and terminations.

Orientation. Both orientations are available across the range, but orientation is **profile-specific rather than universal**. Chevron and Standing Seam are published for either application. Shallow Fluted is recommended vertically, where uninterrupted ribs also shed water by rainfall; Board & Batten and the fluted profiles are vertical by nature. V-Notch and Lap read horizontally in conventional application. **Continuity of the drainage and ventilation path differs between orientations.** Use the Engage detail for the selected profile and orientation rather than adapting the opposite condition.

■ MOVEMENT

Two conditions, handled separately.

Thermal movement of the cladding. The clip mechanically retains the plank while permitting longitudinal movement. Required clearances are maintained at plank ends and terminations per FastPlank installation requirements. Engage can confirm the expansion allowance and clearance schedule for the specified plank lengths and finish.

Structural movement. Cross-grain shrinkage and cumulative inter-story movement in wood-frame construction are building design considerations, not cladding properties. Where inter-story movement is anticipated, cladding layout and horizontal transitions should be located and sized against the project's calculated movement. **FastPlank should not be detailed to bridge a structural movement joint in a manner that restricts anticipated movement.**

■ MATERIAL AND DURABILITY

Aluminum is non-absorptive. It is not subject to rot, moisture-induced swelling or moisture-driven dimensional change, and it is not subject to the freeze-thaw and absorption considerations associated with cementitious cladding. Concealed clip attachment allows thermal movement of the plank rather than restraining it.

Aluminum carries its own considerations, **impact resistance, coating wear and galvanic compatibility**, which is why the attachment condition and exposure are reviewed rather than assuming material immunity.

Fasteners and dissimilar metals. FastPlank is extruded aluminum and is not subject to ferrous corrosion. Fastening components are selected for compatibility with the aluminum system. Where dissimilar metals occur at the attachment (substrate anchors, sub-framing, or adjacent flashings), isolation or compatible fastener selection is required to control galvanic potential. Fastener material and any required separation should be confirmed against the actual substrate, coatings and exposure, particularly in **coastal or industrial environments**.

Maintenance. There is no prescribed repainting cycle as there would be for a field-finished system. Cleaning and maintenance follow Engage's published care and maintenance requirements.

Warranty: read the two terms separately. FastPlank carries a **50-year product warranty**; the factory-applied architectural finish carries a **20-year finish warranty**. The 50-year term is a product warranty and is not represented as a coating warranty.

■ PUBLISHED TEST EVIDENCE

Third-party testing supporting the system. Full reports are available on request.

Property	Standard	Result
Surface burning	ASTM E84	Flame Spread 5, Smoke Developed 100 (Class A)
Surface burning	CAN/ULC-S102	Flame Spread 0, Smoke Developed 30
Extended 30-minute burn	ASTM E2768	Complies
Non-combustibility	ASTM E136 / CAN/ULC-S114	Met criteria, non-combustible
Wind load	ASTM E330-14	38–97 psf allowable, by configuration
Rainscreen performance	AAMA 508-21	Pass, pressure-moderated, lag time below 0.08 s
Water penetration	ASTM E331	Pass to 958 Pa (20 psf)
Dynamic water	AAMA 501.1 style	Pass at 34.3 m/s (76.7 mph)
Air leakage	ASTM E283	0.6 L/s·m ² (0.12 cfm/ft ²) at 75 Pa
Corrosion	ASTM B117	1000 hours, no corrosion
Acoustic	ASTM E90	STC 60

Code listings: Intertek **CCRR-0480** (construction types I–V) · Miami-Dade **NOA 24-0808.02** (HVHZ) · engineering evaluations for NBCC, BCBC, OBC, NBC Alberta Edition, IBC and CBC.

On the cavity. The 3/8 in. offset meets the code requirement for a drained and vented air space behind cladding. The stronger credential for envelope review is the **AAMA 508 result**: the assembly has been demonstrated to behave as a pressure-moderated rainscreen, with cavity lag time below 0.08 s and the cavity-to-cyclic pressure differential within 50% of maximum test pressure across 240–1200 Pa.

■ WEIGHT AND STRUCTURAL SUPPORT

Extruded aluminum results in a comparatively low cladding dead load, which may reduce secondary cladding-support requirements relative to heavier exterior materials. Where cladding weight is a meaningful share of design dead load, there may also be opportunity for structural optimization.

Any reduction in primary structure or foundation design must be determined by the project structural engineer from the complete load analysis. Engage will provide an accurate assembly weight for the specified profile and clip spacing rather than a generalized value.

■ INSTALLATION

No CNC fabrication required. The system is measured, cut and assembled using conventional installation equipment. CNC (computer numerical control machining to programmed dimensions) is used where high dimensional accuracy is required for prefabricated components, and is not part of standard FastPlank field installation.

Crew size. No prescribed crew size. Planks are lightweight and the clip attachment supports efficient installation by small crews; approximately 2–3 installers per active work area is typical on commercial work. Actual requirements depend on plank length, building height, access equipment, material staging, façade complexity, opening frequency and installer experience.

Installation speed. The clip establishes the cladding offset and the concealed attachment in the same operation, so the attachment and the rainscreen cavity are created in one sequence rather than by installing a separate furring layer. Production rates are driven by geometry: large repetitive wall areas install considerably faster than façades with frequent openings, transitions, corners, penetrations or short runs.

Support available. Installation Guide, installation videos, typical details, CAD resources and condition-specific instructions. Technical and installation support is available to contractors and installers. The clip-and-plank system simplifies installation, but **substrate preparation, flashing, fastening, clearances, terminations and water management remain governing regardless of installer experience.**

■ RETROFIT AND OVERCLAD

Overclad and retrofit applications over existing stucco, rainscreen stucco or EIFS are feasible subject to review of the existing assembly.

The governing question is not whether FastPlank can be installed over the existing finish, but whether a reliable load path can be established back to a structural substrate while maintaining the water-management strategy.

Existing conditions to be reviewed

- Substrate type and condition
- Location and capacity of structural attachment points
- Existing moisture or deterioration
- Existing WRB and drainage configuration
- Exterior insulation thickness and compressibility
- Fastener length and pull-out requirements
- Window, door, roof, parapet and penetration interfaces
- Required drainage and ventilation paths
- Added wall thickness and resulting flashing and opening extensions

Conventional stucco. The existing finish may be retained where its condition and the proposed attachment strategy permit.

EIFS. The lamina and insulation are **not** assumed to provide structural attachment. Attachment must be designed through the existing assembly to a suitable structural substrate, with fastener length and any compressibility of the existing insulation accounted for in the connection design.

■ FINISH, LEAD TIME AND BUDGET

All FEPS profiles are finished in architectural-grade powder coating, applied electrostatically and oven-cured. QuickPanel® 2.0 is finished in PVDF Kynar coating.

Stock finishes. Woodgrains: Light Cherry, Dark Fir, Dark Cherry, Dark Walnut. Solids: Bone White, Cadet Grey, Charcoal, Classic Black.

Extended range. Additional special-order woodgrains bring the total woodgrain offering to approximately 24. Woodgrains are achieved by **sublimation** rather than by a printed or field-applied finish. Custom solid colors are developed through the **ColorMatch®** program, with selection from over 1,500 RAL colors or a custom match to a project palette. Finish samples are available for verification and approval; reproductions in printed literature may differ from the finished product.

Lead time. Special-order woodgrains carry published lead times of 12–14 weeks and may be subject to minimum order quantities. ColorMatch® custom solids carry additional lead time established per project. On large projects the governing drivers are total quantity, selected finish, color development and approval, production scheduling, and whether staged releases are required. **Color development and sample approval can run during preconstruction** so that the finish is approved ahead of the required production release date.

Budget. A reliable \$/ft² figure should be developed from the drawings rather than by applying a generic material allowance. Cost is driven by profile and plank width, orientation, standard versus custom finish, building geometry and opening frequency, corner conditions, trim and transition requirements, material utilization and waste, substrate and attachment requirements, and project location and logistics. Engage provides project-specific estimating and take-off from elevations, issuing a material budget that gives a defensible figure for comparison against alternate systems. Early involvement also allows review of plank layout, material utilization and trim conditions that affect installed cost.

■ DISCLAIMER

Engage Building Products Inc. ("Engage") manufactures and supplies extruded aluminum cladding components. **Engage does not act as, and assumes no liability in place of, the project's architect, engineer of record, or any other design professional.**

Information published by Engage, including product data, test reports, typical details, CAD files and specifications, is provided for product selection and general design assistance. It is not project-specific engineering advice, is not a substitute for design by a qualified professional, and does not relieve any party of its own professional obligations.

Responsibility for the design of the wall assembly rests with the project's design professionals. This includes, without limitation: determination of design loads and structural attachment; water-resistive barrier, air barrier, vapor control and flashing design and continuity; thermal performance and effective assembly R-value; accommodation of thermal and structural movement; fire and building code compliance for the specific building height, construction type and occupancy; and the suitability of the product for the intended application, exposure and substrate.

Test results reflect the specific assemblies, substrates and configurations tested and may not represent project conditions. Published documents are subject to revision; the current revision should be confirmed with Engage before it is relied upon. Typical details are illustrative and are not project details.

Installation is performed by others. Engage is not responsible for installation workmanship or for conditions of the existing structure or substrate. Engage's obligations are limited to those set out in its published warranties and terms and conditions of sale.

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